

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A ferroelectric memory, comprising:
 - a microstructure;
 - a passive matrix array that includes memory cells formed of ferroelectric capacitors, a ferroelectric capacitor being defined by an intersection of row and column electrodes sandwiching a ferroelectric film common to the passive matrix array, the passive matrix array being formed on the microstructure;
 - a substrate, the microstructure being centrally positioned and integrated on the substrate; and
 - a peripheral circuit ~~comprising a line driver circuit peripheral to the passive matrix array~~ including at least a word line driver circuit and a bit line driver circuit for driving the passive matrix array, the peripheral circuit being separately formed on the substrate, wherein the passive matrix array is electrically connected to the ~~line driver circuit peripheral circuit~~ peripheral circuit, and wherein the passive matrix array and the peripheral circuit are separately fabricated.
2. (Currently Amended) A ferroelectric memory, comprising:
 - a substrate;
 - a passive matrix array that includes memory cells formed of ferroelectric capacitors, a ferroelectric capacitor being defined by an intersection of row and column electrodes sandwiching a ferroelectric film common to the passive matrix array, the passive matrix array being formed on the substrate;
 - a microstructure; and

a peripheral circuit ~~comprising a line driver circuit for the passive matrix array~~
including at least a word line driver circuit and a bit line driver circuit for driving the passive
matrix array, the peripheral circuit being separately formed on the microstructure, the
microstructure being peripherally positioned and integrated on the substrate, wherein the
passive matrix array is electrically connected to the ~~line driver circuit~~ peripheral circuit, and
wherein the passive matrix array and the peripheral circuit are separately fabricated.

3. (Currently Amended) A ferroelectric memory, comprising:

a first microstructure;

a passive matrix array that includes memory cells formed of ferroelectric
capacitors, a ferroelectric capacitor being defined by an intersection of row and column
electrodes sandwiching a ferroelectric film common to the passive matrix array, the passive
matrix array being formed on the first microstructure;

a second microstructure;

a peripheral circuit ~~comprising a line driver circuit for the passive matrix array~~
including at least a word line driver circuit and a bit line driver circuit for driving the passive
matrix array, the peripheral circuit being separately formed on the second microstructure; and

a substrate, the first and second microstructures being integrated on the
substrate, wherein the ~~line driver circuit~~ peripheral circuit is peripherally positioned and
electrically connected with the passive matrix array, and wherein the passive matrix array and
the peripheral circuit are separately fabricated.

4. (Previously Presented) The ferroelectric memory according to claim 1, further
including a plurality of microstructures integrated on the substrate, the passive matrix array
being formed on each of the plurality of microstructures.

5. (Previously Presented) The ferroelectric memory according to claim 1,
wherein:

a recess portion in which the microstructure is provided is formed in the substrate; and

the microstructure is provided in the recess portion and integrated on the substrate.

6. (Previously Presented) The ferroelectric memory according to claim 5, wherein the substrate is formed by transfer-molding a photocurable resin.

7. (Withdrawn) A ferroelectric memory, comprising:

a first microstructure;

a plurality of pairs of a passive matrix array that each includes memory cells formed of ferroelectric capacitors, the plurality of pairs of the passive matrix array being provided on the first microstructure;

a second microstructure;

a peripheral circuit for the passive matrix array, the peripheral circuit being formed on the second microstructure; and

a substrate, at least one of the pairs of the passive matrix array being provided on each side of the substrate.

8. (Currently Amended) A ferroelectric memory, comprising:

a passive matrix array that includes memory cells formed of ferroelectric capacitors, a ferroelectric capacitor being defined by an intersection of row and column electrodes sandwiching a ferroelectric film common to the passive matrix array,

a peripheral circuit ~~comprising a line driver circuit for the passive matrix array~~
including at least a word line driver circuit and a bit line driver circuit for driving the passive matrix array;

an associated circuit having a same or a different function as the memory cells;

a single substrate; and

a plurality of microstructures, the passive matrix array, the peripheral circuit and the associated circuit being separately formed on each of the plurality of microstructures, the microstructures being integrated on the single substrate, wherein the ~~line driver circuit~~ peripheral circuit is positioned and electrically connected with the passive matrix array, and wherein the passive matrix array and the peripheral circuit are separately fabricated.

9. (Currently Amended) A ferroelectric memory, comprising:

a passive matrix array that includes memory cells formed of ferroelectric capacitor, a ferroelectric capacitor being defined by an intersection of row and column electrodes sandwiching a ferroelectric film common to the passive matrix array,

a peripheral circuit ~~comprising a line driver for the passive matrix array~~ including at least a word line driver circuit and a bit line driver circuit for driving the passive matrix array; and

a single microstructure, the passive matrix array and the peripheral circuit being separately fabricated, positioned and integrated on the single microstructure, wherein the ~~line driver circuit~~ peripheral circuit is peripherally positioned and electrically connected with the passive matrix array, and wherein the passive matrix array and the peripheral circuit are separately fabricated.

10. (Currently Amended) A ferroelectric memory, comprising:

a first microstructure;

a passive matrix array that includes memory cells formed of ferroelectric capacitors, a ferroelectric capacitor being defined by an intersection of row and column electrodes sandwiching a ferroelectric film common to the passive matrix array, the passive matrix array being formed on the first microstructure;

a second microstructure that is larger than the first microstructure, the first microstructure being provided in a central part of the second microstructure to be integrated; and

a peripheral circuit ~~comprising a line driver circuit peripheral to the passive matrix array~~ including at least a word line driver circuit and a bit line driver circuit for driving the passive matrix array, the peripheral circuit being separately formed on the second microstructure, wherein the ~~line driver circuit peripheral circuit~~ is electrically connected with the passive matrix array, and wherein the passive matrix array and the peripheral circuit are separately fabricated.

11. (Withdrawn) A ferroelectric memory, comprising:

a plurality of microstructures;

a passive matrix array that includes memory cells formed of ferroelectric capacitors, the passive matrix array being formed on each of the plurality of microstructures;

a peripheral circuit for the passive matrix array; and

a substrate, the microstructures being provided in layers to be integrated in the substrate.

12. (Currently Amended) A method of fabricating a ferroelectric memory which includes a passive matrix array including memory cells formed of ferroelectric capacitors, a ferroelectric capacitor being defined by an intersection of row and column electrodes sandwiching a ferroelectric film common to the passive matrix array, and a peripheral circuit ~~comprising a line driver circuit peripheral to the passive matrix array~~ including at least a word line driver circuit and a bit line driver circuit for driving the passive matrix array, the method comprising:

forming the passive matrix array on a microstructure;

separately forming the peripheral circuit on a substrate; and

centrally positioning and integrating the microstructure on the substrate, wherein the passive matrix array is electrically connected to the ~~line driver circuit~~ peripheral circuit; and wherein the passive matrix array and the peripheral circuit are separately fabricated

13. (Currently Amended) A method of fabricating a ferroelectric memory which includes a passive matrix array including memory cells formed of ferroelectric capacitors, a ferroelectric capacitor being defined by an intersection of row and column electrodes sandwiching a ferroelectric film common to the passive matrix array, and a peripheral circuit ~~comprising a line driver circuit peripheral to the passive matrix array~~ including at least a word line driver circuit and a bit line driver circuit for driving the passive matrix array, the method comprising:

forming the passive matrix array centrally disposed on a substrate;

separately forming the peripheral circuit on a microstructure; and

integrating the microstructure on the substrate, wherein the ~~line driver circuit~~ peripheral circuit is peripherally positioned and electrically connected with the passive matrix array, and wherein the passive matrix array and the peripheral circuit are separately fabricated.

14. (Currently Amended) A method of fabricating a ferroelectric memory which includes a passive matrix array including memory cells formed of ferroelectric capacitors, a ferroelectric capacitor being defined by an intersection of row and column electrodes sandwiching a ferroelectric film common to the passive matrix array, and a peripheral circuit ~~comprising a line driver circuit peripheral to the passive matrix array~~ including at least a word line driver circuit and a bit line driver circuit for driving the passive matrix array, the method comprising:

forming the passive matrix array on a first microstructure;

separately forming the peripheral circuit on a second microstructure; and
integrating the first and second microstructures on a substrate, wherein the ~~line~~
~~driver circuit peripheral circuit~~ is peripherally positioned and electrically connected with the
passive matrix array, and wherein the passive matrix array and the peripheral circuit are
separately fabricated.

15. (Previously Presented) The method of fabricating a ferroelectric memory
according to claim 12, further including:

forming a recess portion in the substrate which corresponds to a shape of the
microstructure; and

providing the microstructure in the corresponding recess portion in the
substrate to be integrated.

16. (Previously Presented) The method of fabricating a ferroelectric memory as
defined in claim 15,

wherein the step of providing the microstructure includes providing a fluid
which contains the microstructure to a surface of the substrate.

17. (Withdrawn) A method of fabricating a ferroelectric memory which includes a
passive matrix array including memory cells formed of ferroelectric capacitors, and a
peripheral circuit for the passive matrix array, the method comprising:

forming a plurality of pairs of the passive matrix array on a first
microstructure;

forming the peripheral circuit on a second microstructure; and

integrating at least one of the pairs on each side of a substrate.

18. (Currently Amended) A method of fabricating a ferroelectric memory, which
includes a passive matrix array including memory cells formed of ferroelectric capacitors, a
ferroelectric capacitor being defined by an intersection of row and column electrodes

sandwiching a ferroelectric film common to the passive matrix array, and a peripheral circuit ~~comprising a line driver circuit peripheral to the passive matrix array~~ including at least a word line driver circuit and a bit line driver circuit for driving the passive matrix array, the method comprising:

forming the passive matrix array on a first microstructure;

separately forming the peripheral circuit on a second microstructure which is larger than the first microstructure; and

providing the first microstructure in a central part of the second microstructure to be integrated, wherein the ~~line driver circuit peripheral circuit~~ is electrically connected with the passive matrix array, and wherein the passive matrix array and the peripheral circuit are separately fabricated.

19. (Previously Presented) A method of fabricating a ferroelectric memory, which includes a passive matrix array including memory cells formed of ferroelectric capacitors, a ferroelectric capacitor being defined by an intersection of row and column electrodes sandwiching a ferroelectric film common to the passive matrix array, and a peripheral circuit comprising a line driver circuit peripheral to the passive matrix array, the method comprising:

separately forming the passive matrix array on each of a plurality of microstructures; and

providing the microstructures in layers to be integrated in a substrate, wherein the passive matrix array on each of the plurality of microstructures is electrically connected to a respective drain wiring.

20. (Previously Presented) The ferroelectric memory according to claim 2, further including a plurality of microstructures integrated on the substrate, at least one of word line driver circuit and bit line driver circuit being formed on each of the plurality of microstructures.

21. (Previously Presented) The ferroelectric memory according to claim 2, wherein:

a recess portion in which the microstructure is provided is formed in the substrate; and

the microstructure is provided in the recess portion and integrated on the substrate.

22. (Previously Presented) The ferroelectric memory according to claim 3, further including a plurality of microstructures integrated on the substrate, the passive matrix array and at least one of word line driver circuit and bit line driver circuit being formed on each of the plurality of microstructures.

23. (Previously Presented) The ferroelectric memory according to claim 3, wherein:

a recess portion in which the microstructure is provided is formed in the substrate; and

the microstructure is provided in the recess portion and integrated on the substrate.

24. (Previously Presented) The method of fabricating a ferroelectric memory according to claim 13, further including:

forming a recess portion in the substrate which corresponds to a shape of the microstructure; and

providing the microstructure in the corresponding recess portion in the substrate to be integrated.

25. (Previously Presented) The method of fabricating a ferroelectric memory according to claim 14, further including:

forming a recess portion in the substrate which corresponds to a shape of the microstructure; and

providing the microstructure in the corresponding recess portion in the substrate to be integrated.